

# RUFFED GROUSE RESTORATION

Ruffed grouse (*Bonasa umbellus*) were found nearly statewide in Iowa during the mid-19th century but deforestation and grazing of timber caused a dramatic decline of grouse populations (Klonglan and Hlavka 1969). Ruffed grouse had disappeared from southwest Iowa by 1900 and further population declines occurred in the south and east-central portions prior to the 1920's.

Grouse were restricted to their present range in the northeast 6 counties by 1930 (Fig. 9.1). Between 1930 and the early 1960's there was an increase in available and potential grouse habitat in southern and eastern Iowa primarily from secondary succession of private forests and the acquisition and removal of state lands from grazing.

## 1962 & 1965

Initial attempts by the Iowa Department of Natural Resources (IDNR) to restore extirpated ruffed grouse populations in southeast Iowa were in 1962 and 1965 with the release of 7 and 12 grouse, respectively (Table 9.1). The grouse were captured in northeast Iowa and released into Shimek State Forest (release site #1a,b Fig. 9.2). The last documented sighting of a grouse associated with these releases was in 1969 (IDNR, unpubl. data).

## 1971 & 1972

An intensified second attempt to restore grouse in southern Iowa occurred nearly 10 years later, in 1971 and 1972. The Lick Creek Unit of Shimek State Forest received 43 grouse trapped in northeast Iowa in 1971 and Stephens State Forest received 40 grouse from northeast Iowa in 1972 (Table 9.1). Additionally, 9 grouse were released at Ledges State Park in central Iowa. Little and Sheets (1982) evaluated the Shimek State Forest release 7 years post-release and

concluded that there was potential for restoring ruffed grouse to southern Iowa. Natural events (windthrow, fire, and tree diseases) provided sufficient early seral stage habitats to maintain the grouse at low densities despite little or no forest management for grouse. There were no post-release observations of grouse associated with the Ledges State Park release and this stocking is assumed to have failed.

## 1979 & 1980

Potential habitat in east-central Iowa that would expand the existing grouse distribution was stocked during 1979 and 1980. Forty grouse were caught in northeast Iowa and moved 3 counties south and released on a state-owned wildlife management area (WMA), release site #3.5. Limited information exists on the outcome of this release, although a banded grouse released in 1979 was harvested during the 1983 hunting season.

## 1982 & 1983

Although the potential for a successful restoration program in southern Iowa had been documented, it wasn't until 1982 that a third release of ruffed grouse occurred. A wildlife trade in 1982 and 1983 allowed the IDNR to acquire 224 Michigan ruffed grouse which were released at 1 north-central and 3 southern sites, release sites #4, 5, 6, and 7, respectively (Fig. 9.2 and Table 9.1). Twenty-one grouse at Sand Creek WMA and 17 grouse at the Whitebreast Unit of Stephens State Forest were marked with radio transmitters and monitored sporadically. Radio-marked grouse survived poorly at both sites. Surviving, radio-marked grouse at Sand Creek moved considerable distances, apparently not preferring the habitat at the release site (IDNR, unpubl. data).

## 1985

Restoration continued in 1985 with the release of 33 northeast Iowa grouse in Jones County at the periphery of their current range (release #8, Fig. 9.2).

### **1986**

In spring 1986, 22 drumming count surveys of the 1982-83 release sites found 9 males and 43 drumming count survey routes conducted at the 1971-72 release sites found 4 males. In 1986, encouraged by at least marginal success of the 1982-83 releases, the IDNR released another 208 grouse into 4 units of Stephens State Forest (release sites #5, 7, 9, and 11) and surrounding private land (release site #10). The grouse were from 3 sources, 41 from northeast Iowa, 136 from Indiana and 31 from Wisconsin. Sex ratio of the grouse released was unfortunately male dominated (1.6 males:1 female).

### **1987**

In 1987 the IDNR supplemented the 1986 releases with 199 additional grouse onto the same units of Stephens State Forest and nearby private lands (release sites #13 and 16). Five new sites in major timber areas (release sites #12, 14, 15, 17, and 18) also received grouse. In total, 405 grouse were released, 66, 131, and 208 from northern Iowa, Indiana, and Wisconsin, respectively. Primary goals of the 1987 releases were to increase the number of females at the Stephens State Forest release sites and to start restoration efforts at the 5 other sites.

### **1988**

Grouse restoration efforts during 1988 resulted in the release of 163 grouse at 6 new sites (sites #19 - 24) and 2 sites that had received grouse in 1987. Grouse for the 1988 releases came from 3 sources, 42 grouse from northeast Iowa, 53 from Indiana, and 68 from Wisconsin. Fifty-three grouse were released onto 5 private land sites in Lucas and Monroe counties near Stephens State Forest and 1 unit

of Stephens State Forest. Two sites that received grouse in 1987, #12 and 18, received 104 additional grouse in 1988 to complete the stocking at these sites. One site in northeast Iowa, site #24, received 6 grouse that were "not suitable" for shipment to other restoration sites.

### **1989**

Eighty-seven grouse released in 1989 were put at 3 new southern Iowa sites (sites #25, 26, and 27). These sites are just now becoming acceptable grouse habitat and fortunately are located between other previous release sites. This string of releases across the southeast portion of Iowa was made in hope that established and dispersing birds would start encountering each other.

### **1990**

Completion of interstate wildlife trades limited the number of grouse available for release in 1990. However, 72 ruffed grouse were released at 3 different sites (site #27, 28, and 29). Grouse from Indiana were used to complete a state land stocking (site #27), which was started in 1989, and a stocking on private land within the same drainage (#28). Eighteen Wisconsin grouse were used to stock site #29 in Lee County, not far from the initial 1962 release.

### **1998**

During spring 1998, the IDNR conducted drumming surveys for presence/absence of grouse on or near all but 2 of the past release sites in southern and southeastern Iowa. Grouse were found on 16 sites in Lucas, Clark and Monroe counties. Grouse were absent on 11 sites including sites in Decatur (Sand Creek WMA), Lee (Shimek State Forest) and Monroe (Tyrone WMA) counties.

### **1999**

In 1999, 15 grouse (10 males, 5 females) were captured in northeast Iowa and released in the Amana Colonies in Iowa County (site #30). The success of this transplant is still being evaluated.

#### **2000**

Releases of ruffed grouse ceased in 2000.

#### **FUTURE**

Unfortunately, it may be futile to continue to attempt to re-establish grouse in southern and southeastern Iowa since the conditions that caused initial declines of grouse populations still exist and may actually be becoming more unfavorable. The IDNR has released grouse into the "best" grouse habitat available in southern and southeastern Iowa, yet it may not be suitable for long-term survival of re-introduced grouse. Drumming counts with less than 1 drumming male per 30 acres indicates poor habitat in Minnesota (G.

Gullion, pers. commun.). Even with all the restoration efforts completed thus far, the best drumming male density documented in a recently stocked state forest unit has been only 0.3 male per 30 acres (1 male/95 acres). Drumming counts in northeast Iowa in the mid-1960's gave density estimates of over 4 males/100 acres. Without a more intensive conversion of mature (maturing) forest stands in southern Iowa to early second growth stands with 3000-6000 stems/acre, additional releases can not be justified.

#### **HUNTING SEASONS**

Although limited in distribution the existing populations in northeast Iowa have persisted and provided limited hunting opportunity. The first modern-day hunting season was in 1968, after a 44-year continuously closed season (Table 9.2). Current hunting season format was established in 1981 and has varied only to assure the season opens on a Saturday.

Table 9.1 Ruffed grouse restoration efforts for Iowa, 1962-present.

SITE NUMBER STOCKED	YEAR	GROUSE SOURCE	COUNTY STOCKED	LOCATION AND SITE NAME	MALE	FEM	UNK
1A	1962	NE IOWA	LEE	SHIMEK SF			7
1B	1965	NE IOWA	LEE	SHIMEK SF			12
1C	1971	NE IOWA	LEE	SEC 16, T-67N R-07W LICK CREEK UNIT	26	17	
2	1972	NE IOWA	BOONE	LEDGES STATE PARK	4	5	
3	1972	NE IOWA	LUCAS	STEPHENS SF	25	15	
3.5	1979	NE IOWA	JACKSON	SEC 8, T-86N R-04E BIG MILL WMA	9	7	
	1980	NE IOWA	JACKSON	SEC 18, T-86N R-04E BIG MILL WMA	13	11	
4	1982	MICHIGAN	HAMILTON	SEC 30, T-89N R-26W BOONE FORKS	17	27	10
5A	1982	MICHIGAN	MONROE	1000 ACRE UNIT	27	24	
6	1982	MICHIGAN	DECATUR	SAND CREEK WMA	23	11	
7A	1983	MICHIGAN	LUCAS	WHITEBREAST UNIT	42	39	3
8	1985	NE IOWA	JONES	SEC 28, T-85N R-04W ANAMOSA	16	17	
5B	1986	IA/WI/IN	MONROE	SEC 20, T-73N R-19W 1000 ACRE UNIT	44	27	
7B	1986	IA/IN	LUCAS	SEC 04, T-71N R-23W WHITEBREAST UNIT	32	18	
7C	1986	IA/IN	LUCAS	SEC 34, T-72N R-23W WHITEBREAST UNIT	15	8	
9	1986	INDIANA	LUCAS	SEC 26, T-72N R-23W LUCAS UNIT	6	5	
10	1986	INDIANA	LUCAS	SEC 19, T-72N R-22W PRIVATE	24	7	
11A	1986	WISCONSIN	LUCAS	SEC 35, T-73N R-20W CHARITON UNIT	4	10	
11B	1986	WISCONSIN	LUCAS	SEC 26, T-73N R-20W CHARITON UNIT	5	3	
12	1987	WISCONSIN	DES MOINES	SEC 18, T-69N R-03W AMMO PLANT	47	29	4
13	1987	WISCONSIN	LUCAS	SEC 36, T-72N R-20W PRIVATE	12	10	1
14	1987	NE IOWA	HANCOCK	SEC 03, T-97N R-23W GABRIELSON WMA	21	19	
15	1987	NE IOWA	WINNESHIEK	SEC 06, T-98N R-10W CARDINAL MARSH	2	4	
16	1987	INDIANA	MONROE	SEC 16, T-72N R-19W PRIVATE	16	11	
17	1987	WIS./IOWA	BREMER	SEC 11, T-92N R-12W SWEETS MARSH WMA	29	19	6
18	1987	WISCONSIN	CEDAR	SEC 12, T-82N R-01W MASSILLON	11	15	
	1987	IND/WIS	LUCAS/MONR	LUCAS - MONROE CO.	79	68	2
19	1988	INDIANA	LUCAS	SEC 04, T-72N R-20W PRIVATE	5	4	
20	1988	INDIANA	LUCAS	SEC 03, T-72N R-20W PRIVATE	3	5	
21	1988	INDIANA	LUCAS	SEC 07, T-72N R-20W CEDAR CREEK UNIT	5	5	
22	1988	INDIANA	LUCAS	SEC 09, T-72N R-20W PRIVATE	7	5	
23B	1988	INDIANA	MONROE	SEC 17, T-72N R-19W PRIVATE	7	4	
24	1988	NE IOWA	WINNESHIEK	SEC 33, T-100N R-7W S. BEAR CREEK WMA	6	0	
12	1988	WISCONSIN	DES MOINES	SEC 18, T-69N R-03W AMMO PLANT	32	36	
18	1988	NE IOWA	CEDAR	SEC 12, T-82N R-01W MASSILLON	27	9	
25	1989	WISCONSIN	HENRY	SEC 36, T-70N R-05W GEODE STATE PARK	29	21	
26	1989	NE IOWA	CLARKE	SEC 17, T-71N R-24W PRIVATE	15	10	
27	1989	NE IOWA	MONROE	SEC 03, T-71N R-18W TYRONE UNIT	6	6	
	1990	INDIANA	MONROE	SEC 03, T-71N R-18W TYRONE UNIT	11	18	
28	1990	INDIANA	MONROE	SEC 14, T-71N R-18W PRIVATE	11	14	
29	1990	WISCONSIN	LEE	SEC 04, T-69N R-05W PRIVATE	8	10	
30	1999	NE IOWA	IOWA	SEC 24, T-81N R-10W AMANA COLONIES	10	5	
					731	578	45

Table 9.2 Ruffed grouse hunting seasons, 1856-present.

YEAR	SEASON DATES	BAG LIMIT *	SEASON LENGTH	SHOOTING HOURS
PRE-1856	Continuously open	None	365	None
1856-1878	16 July-31 January	None	200	None
1878-1904	16 July-31 January	25/none**	200	None
1904-1923	1 November-15 December	25/none**	45	None
1924-1967	##Continuously closed##	---	0	---
1968	01 November-17 November	2/4	17	8:00 a.m.-4:30 p.m.
1969	31 October-29 November	2/4	30	8:00 a.m.-4:30 p.m.
1970	31 October-29 November	2/4	30	8:00 a.m.-4:30 p.m.
1971	30 October-28 November	2/4	30	8:00 a.m.-4:30 p.m.
1972	21 October-1 December	2/4	42	8:00 a.m.-4:30 p.m.
1973	20 October-25 November	2/4	37	Sunrise-Sunset
1974	12 October-6 December	3/6	56	Sunrise-Sunset
1975	11 October-4 January 1976	3/6	86	Sunrise-Sunset
1976	09 October-1 January 1977	3/6	85	Sunrise-Sunset
1977	08 October-1 January 1978	3/6	86	Sunrise-Sunset
1978	14 October-8 January 1979	3/6	87	Sunrise-Sunset
1979	13 October-6 January 1980	3/6	86	Sunrise-Sunset
1980	11 October-11 January 1981	3/6	93	Sunrise-Sunset
1981	10 October-31 January 1982	3/6	114	Sunrise-Sunset
1982	09 October-31 January 1983	3/6	115	Sunrise-Sunset
1983	08 October-31 January 1984	3/6	116	Sunrise-Sunset
1984	13 October-31 January 1985	3/6	111	Sunrise-Sunset
1985	12 October-31 January 1986	3/6	112	Sunrise-Sunset
1986	11 October-31 January 1987	3/6	113	Sunrise-Sunset
1987	10 October-31 January 1988	3/6	114	Sunrise-Sunset
1988	08 October-31 January 1989	3/6	116	Sunrise-Sunset
1989	07 October-31 January 1990	3/6	117	Sunrise-Sunset
1990	13 October-31 January 1991	3/6	111	Sunrise-Sunset
1991	12 October-31 January 1992	3/6	112	Sunrise-Sunset
1992	10 October-31 January 1993	3/6	114	Sunrise-Sunset
1993	09 October-31 January 1994	3/6	115	Sunrise-Sunset
1994	08 October-31 January 1995	3/6	116	Sunrise-Sunset
1995	14 October-31 January 1996	3/6	110	Sunrise-Sunset
1996	12 October-31 January 1997	3/6	112	Sunrise-Sunset
1997	04 October-31 January 1998	3/6	120	Sunrise-Sunset
1998	03 October-31 January 1999	3/6	121	Sunrise-Sunset
1999	02 October-31 January 2000	3/6	122	Sunrise-Sunset
2000	07 October-31 January 2001	3/6	117	Sunrise-Sunset
2001	06 October-31 January 2002	3/6	118	Sunrise-Sunset
2002	05 October-31 January 2003	3/6	119	Sunrise-Sunset

\* = Daily bag and possession limits.

\*\* = No bag limit was in effect for hunting on one's own land.

Figure 9.1 Ruffed grouse distribution in Iowa, 1992.

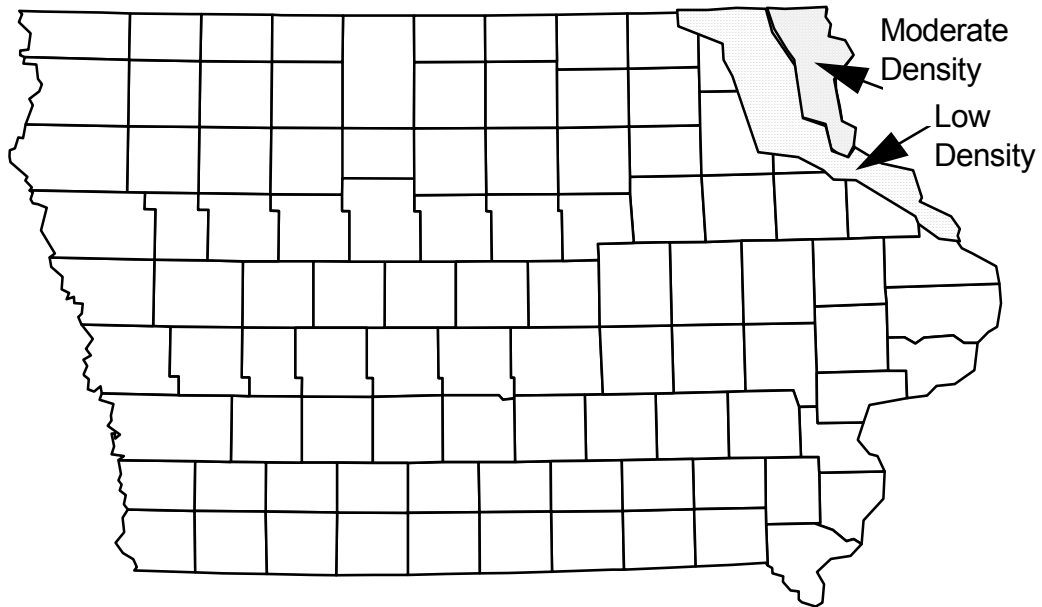
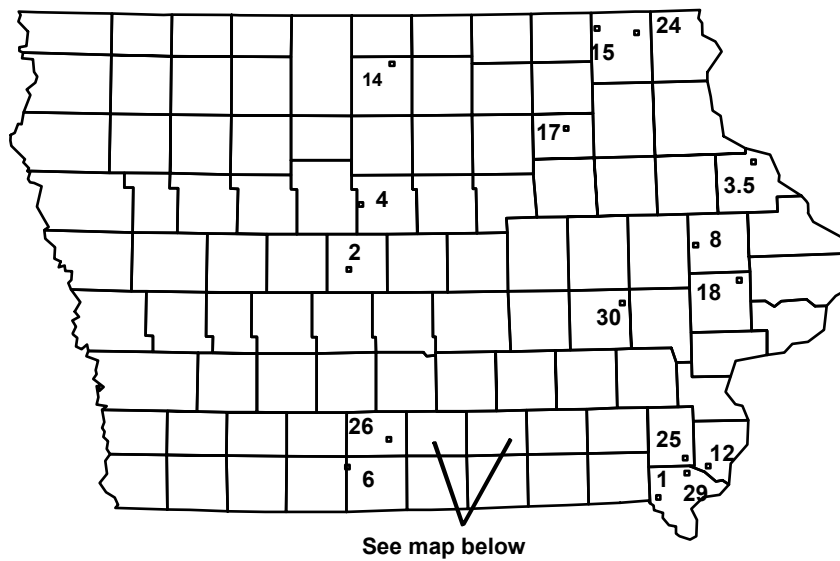
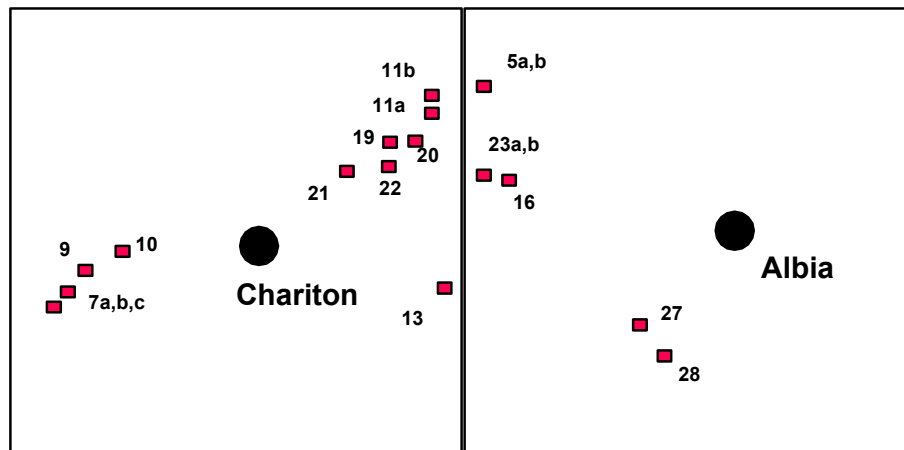


Figure 9.2 Ruffed grouse restoration sites in Iowa, 1962-present



### Lucas County

### Monroe County



### *LITERATURE CITED*

- Klonglan, E. D., and G. Hlavka. 1969. Recent status of ruffed grouse in Iowa. Proc. Iowa Acad. Sci. 76:231-240.
- Little, T. W., and R. Sheets. 1982. Transplanting Iowa ruffed grouse. Proc. Iowa Acad. Sci. 89:172-175.